

includes a medium-supplying unit that supplies medium to the sense-of-touch-representing unit.

[0014] According to the embodiment of the touch-sensitive sheet member, the medium-supplying unit supplies the medium to the sense-of-touch-representing unit that represents the sense of touch, which has a predetermined size and is arranged at positions of the body or at a predetermined position of the body. For example, the air-circulating unit constituting the medium-supplying unit sends air to the aperture of the body or takes in air from the aperture of the body.

[0015] Consequently, the sense-of-touch-representing unit comes to give the concave and convex feeling to the operation body by air blown out of the aperture and by air flowed into the aperture at positions of the body or at a predetermined position of the body. In this manner, even if the member surface is observed to be a flat shape, when the member surface is touched actually with a hand or a finger and a slide is executed from the body to the sense-of-touch-representing unit, it is possible to represent the sense of touch which gives the concave and convex touch feeling to the operation body at positions of the body or at a predetermined position of the body. Thus, the embodiment of the touch-sensitive sheet member may be applied to a programmable nonskid sheet at a grip portion of various kinds of electronic apparatus housings or the programmable touch-sensitive input sheet or the like for icon touch in the input device.

[0016] According to another embodiment, there is provided an input device that inputs information by any one of a slide operation and a press operation of an operation body. The input device contains a display unit having an operation surface, a detection unit that detects any one of a slide position and a press position of the operation body, the detection unit being provided at the display unit having the operation surface, and a transparent touch-sensitive sheet member on which any one of slide operation along the operation surface of the display unit and the press operation to the operation surface of the display unit is executed, the touch-sensitive sheet member covering at least a portion of the detection unit. This touch-sensitive sheet member includes a body having predetermined hardness and a sheet shape, a sense-of-touch-representing unit that represents a sense of touch, the sense-of-touch-representing unit having a predetermined size and being arranged at positions of the body or at a predetermined position of the body, and a medium-supplying unit that supplies medium to the sense-of-touch-representing unit.

[0017] The embodiment of the input device is provided with the embodiment of the touch-sensitive sheet member. Even if the display surface is observed to be a flat shape, when the icon image or the like displayed on the display unit is touched with a hand or a finger and a slide is executed from the body to the sense-of-touch-representing unit, it is possible to represent the input operation accompanied with the concave and convex feeling. This enables the input device with the programmable touch-sensitive input sheet for icon touch to be provided.

[0018] According to a further embodiment, there is provided an electronic apparatus containing a housing and an input device that inputs information by any one of a slide operation and a press operation of an operation body. The input device is provided at the housing. The input device contains a display unit having an operation surface, a detection unit that detects any one of a slide position and a press position of the operation body, the detection unit being provided at the display unit, and a transparent touch-sensitive

sheet member on which any one of slide operation along the operation surface of the display unit and the press operation to the operation surface of the display unit is executed, the touch-sensitive sheet member covering at least a portion of the detection unit. The touch-sensitive sheet member includes a body having predetermined hardness and a sheet shape, a sense-of-touch-representing unit that represents a sense of touch, the sense-of-touch-representing unit having a predetermined size and being arranged at positions of the body or at a predetermined position of the body, and a medium-supplying unit that supplies medium to the sense-of-touch-representing unit.

[0019] The embodiment of the electronic apparatus is provided with the embodiment of the input device, so that it is possible to provide the electronic apparatus with the programmable touch-sensitive input sheet for icon touch linked with the display contents.

[0020] Moreover, it is possible to improve miniaturization and operability of the input device, thereby enabling the reductions of the miss-operation, the cost down and the simplification of the manufacturing process of the electronic apparatus to be realized.

[0021] Additional features and advantages are described herein, and will be apparent from the following Detailed Description and the figures.

BRIEF DESCRIPTION OF THE FIGURES

[0022] FIG. 1 is a perspective view of a touch-sensitive sheet member 100 as a first embodiment for showing a configuration thereof;

[0023] FIGS. 2A and 2B are plan and front views of the touch-sensitive sheet member 100 including partial cross-sections for showing an air supply example in the touch-sensitive sheet member 100;

[0024] FIG. 3 is a cross-sectional view of a blower 3b showing a configuration thereof;

[0025] FIG. 4 is an exploded perspective view of the touch-sensitive sheet member 100 showing an assembly of a base member 1 and a flow channel panel 2 in the touch-sensitive sheet member 100;

[0026] FIG. 5A is a plan view of a flow-out port and FIG. 5B is a cross-sectional view thereof taken along an arrow of X1-X1 shown in FIG. 5A;

[0027] FIG. 6A is a plan view of a flow-out port showing a modification example (No. 1) thereof and FIG. 6B is a cross-sectional view thereof taken along an arrow of X2-X2 shown in FIG. 6A;

[0028] FIG. 7A is a plan view of a flow-out port showing a modification example (No. 2) thereof and FIG. 7B is a cross-sectional view thereof taken along an arrow of X3-X3 shown in FIG. 7A;

[0029] FIG. 8A is a plan view of a flow-out port showing a modification example (No. 3) thereof and FIG. 8B is a cross-sectional view thereof taken along an arrow of X4-X4 shown in FIG. 8A;

[0030] FIG. 9A is a plan view of a flow-out port showing a modification example (No. 4) thereof and FIG. 9B is a cross-sectional view thereof taken along an arrow of X5-X5 shown in FIG. 9A;

[0031] FIG. 10A is a plan view of a flow-out port showing a modification example (No. 5) thereof and FIG. 10B is a cross-sectional view thereof taken along an arrow of X6-X6 shown in FIG. 10A;